DOCUMENT RESUME

ED 107 034 EC 072 521

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TITLE A Comparison of the Adaptive Behavior of Retarded Individuals Successfully and Unsuccessfully Placed in Group Living Homes.
PUB DATE Apr 73
NOTE 24p.; Paper presented at the Annual Meeting of the International Council for Exceptional Children (51st, Dallas, Texas, April 1973)

EDRS PRICE MF-$0.75 HC-$1.58 PLUS POSTAGE
DESCRIPTORS *Adjustment (to Environment); Adolescents; Adults; *Behavior; *Educable Mentally Handicapped; Exceptional Child Research; Failure Factors; *Group Living; Mentally Handicapped; Predictive Measurement; *Rating Scales; Success Factors; Young Adults
IDENTIFIERS *Deinstitutionalization

ABSTRACT

Compared were the adaptive behavior and IQ scores of educable retarded persons 16- to 45-years-old who were successful (N=47) in group living. Scores of parts 1 and 2 of the Adaptive Behavior Scale, including domains of independent functioning, language development, antisocial behavior, and unacceptable or eccentric habits were correlated to house parents' determination of success or failure. Data indicated a significant difference between the two groups. Behavior domains linked to nonsuccessful group living included untrustworthy behavior, economic activity, and hyperactive tendencies. Results suggested the feasibility of insuring appropriate placement through behavior rating. (CL)

ED107034

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Title: A COMPARISON OF THE ADAPTIVE BEHAVIOR OF RETARDED INDIVIDUALS SUCCESSFULLY AND UNSUCCESSFULLY PLACED IN GROUP LIVING HOMES

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Presented at: 51st Annual International Council for Exceptional Children, Dallas, Texas, April 1973
and
3rd International Congress for the Scientific Study of Mental Deficiency, The Hague, Netherlands, September, 1973

Submitted to: Education and Training of the Mentally Retarded

ED072521

A Comparison of the Adaptive Behavior of Retarded Individuals Successfully and Non Successfully Placed in Group Living Homes

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Introduction

Educators long have been interested in the return of the retarded individual to the community following a period of confinement in a residential facility. Fernald, in an address to the American Association for the Study of the Feebleminded in 1906 (Noone, 1968), may have given impetus to this when he indicated that he had placed some of the residents from an institution for the mentally retarded into the community and "surprisingly a considerable number were successful." From this initial recognition, interest and movement in this direction were gradual until the present. Currently many institutions throughout the country are making "deinstitutionalization" a top priority activity in program planning.

Recently added momentum was given to the notion of returning the retarded to the community. The President's Committee on Mental Retardation, MR: 71, indicated that one of the major, national goals is to return one third of the retarded now living in institutions to community living, and further, to make them useful citizens through training for productive employment. The committee indicated that this

can be accomplished by using our present knowledge and techniques from the biomedical and behavioral sciences. This new thrust should give an added incentive to professionals in the field of mental retardation to work toward the development of a list of behavioral competencies needed by the retarded individual for successful adaptation to the demands of community living.

In his analysis of articles in the literature on mental retardation, Tymchuk (1971) indicates that studies of a social nature dealing with retardation are desperately needed if the move toward public assimilation of the retarded is to be continued successfully. Tymchuk considers studies dealing with institutions and the community as falling into this category. Tarjan and associates (1973) state that "there is practically no information available concerning the adjustment of the retarded in the communities."

Statement of Problem

At present in the United States there is a rapid trend towards the establishment of group living homes for the retarded individual within various communities. In January of 1970 the first resident from Sunland Training Center in Gainesville, Florida was placed in a group living home. In January 1973, the first group living home opened for the mentally retarded in Georgia. These group living homes are generally operated by the local county Associations for Retarded Children.

With the rapidly changing attitude regarding residential facilities and personnel found there, along with the increased incentive toward

community placement, care must be taken to minimize the possibility of error in the placement of these individuals into the community. Placement without fully understanding all of the requisite, concomitant behavior could have detrimental effects. The main questions addressed in the present investigation were: Would the knowledge of a retarded individual's adaptive behavior patterns aid in predicting his success in a group living home? And, would the behavioral patterns of those who failed in their community placement differ from those who succeeded there? Thus, the purpose of this study was to compare the adaptive behavior patterns of retarded individuals successfully and nonsuccessfully placed in group living homes so as to facilitate more accurate placement for such individuals.

The adaptive behavior patterns were determined by using the Adaptive Behavior Scale developed by the American Association on Mental Deficiency. Adaptive behavior represents the reversible dimension within the behavioral aspects of mental retardation. (Leland, 1965, 1968). Measurement of these reversible behaviors will provide the basis for curriculum development (Leland, et.al., 1968) and optimal community placement. An individual classified at a certain adaptive behavior level could be placed into an appropriate training program in order that an effort can be made to ameliorate areas of deficiency.

Procedures

In general this study compared the 24 areas of adaptive behavior measured by the AAMD Adaptive Behavior Scale and the I.Q. of those retarded individuals successfully and nonsuccessfully placed in group

living homes. The data was gathered from December, 1972 through March, 1973.

Subjects

The subjects who participated in this study were those retarded individuals who had been placed from the Sunland Training Centers into Group Living Homes within the state of Florida. There were 72 subjects, 47 of whom had been classified as successful and 25 nonsuccessful. They ranged in age from 16 to 45 with an I.Q. range of 45 to 74. Fifty were male and twenty-two were female.

Source of Data

The Adaptive Behavior Scales are behavior rating scales for mentally retarded and emotionally maladjusted individuals. They are designed to provide an objective description and assessment of an individual's adaptive behavior (Nihira et.al. 1969). These scales, published in 1969, became commercially available in the early part of 1970 (Mental Retardation, 1970). This followed extensive research conducted by Leland, Nihira and associates at the Parsons State Hospital and Training Center beginning in 1963 (Heber, 1962).

As stated in the Manual of the Adaptive Behavior Scales, the instrument can serve many purposes of which one is "To identify the areas of deficiencies that individuals or groups have in order to facilitate accurate placement and proper assignment of curriculum or training programs (Greenwood and Perry, 1969)." By using this instrument, more accurate placement and more effective curriculum planning can take place.

The Scale consists of two parts.

Part I of the Adaptive Behavior Scale is designed to assess the individual's skills and habits in ten behavior domains considered important to the maintenance of personal independence in daily living. Part A is a comprehensive review of most of the behavior rating scales currently part of the public domain in both the United States and Great Britain (Leland, et.al., 1967). The ten behavior domains are:

I. Independent Functioning

II. Physical Development

III. Economic Activity

IV. Language Development

V. Number and Time Concept

VI. Occupation - Domestic

VII. Occupation - General

VIII. Self-Direction

IX. Responsibilities

X. Socialization

Part II is designed to provide measures of maladaptive behavior related to personality and behavior disorders. Part II consists of the following fourteen domains:

A. Violent and Destructive Behavior

B. Antisocial Behavior

C. Rebellious Behavior

D. Untrustworthy Behavior

E. Withdrawal

F. Stereotyped Behavior and Odd Mannerisms

G. Inappropriate Interpersonal Manners

H. Inappropriate Vocal Habits

I. Unacceptable or Eccentric Habits

J. Self-Abusive Behavior

K. Hyperactive Tendencies

L. Sexually Abberant Behavior

M. Psychological Disturbances

N. Use of Medications

Administration of the Instruments

The administration of the Adaptive Behavior Scale was conducted by personnel from the Sunland Training Center and by personnel from the various group living homes. Authorization and appointing of each individual was done by administrative personnel in the respective locations. The writer then visited with the group living home personnel and institutional personnel selected for inclusion in the study and instructed the designated personnel on the correct method of administering these instruments. The subject's intellectual level was taken from the individual's records at the Sunland Training Center. In all cases this had been determined by an individually administered intelligence test.

Determination of Success or Failure

The determination of success or failure of the individual was done by the house parents and other placement personnel. If an individual made a successful adaptation to the community by holding a job, getting along with his peers, etc., he was given an ABS rating by the house parents and other personnel at the group living home. If he had not made a successful adaptation, he was returned to the institution, thus being deemed a failure. He was then given the ABS rating by institu-

tional personnel who were very familiar with the individual.

Analysis of Data

Multiple discriminant function analysis was used for the interpretation of this data. Discriminant function yields normalized vector weights which determine which of the 25 variables carry the most weight in determining success or failure. Another advantage to this approach is that it produces a hit-miss classification table which assigns individuals to either the successful or unsuccessful group. To test the hypothesis that the centroid values were the same in the two groups for the 25 variables a chi-square with 24 degrees of freedom at the level of .05 significance was used. The analysis yielded the value 109.5634 with the chi-square table listing 36.415 as the value. Thus the null hypothesis was rejected at the .05 level.

Figure I shows the mean and standard deviation of the 25 variables. The scoring was done on a percentile, therefore the closer the score is to 100 the less problem the individual is having in this area.

Table I lists the variables that contribute the most to group discrimination. The "positive direction" indicates that the successful group scored higher, or received a better score, on that particular variable. The "negative direction" indicates that the successful group scored lower on that variable. The successful group scored at a lower percentile level in the area of language development than did the non-successful group. In the area of untrustworthy behavior, the second most heavily weighted discriminate function coefficient, the unsuccessful group was found to be more untrustworthy because they fell at a lower percentile level than the successful group. Inappropriate inter-

FIGURE I

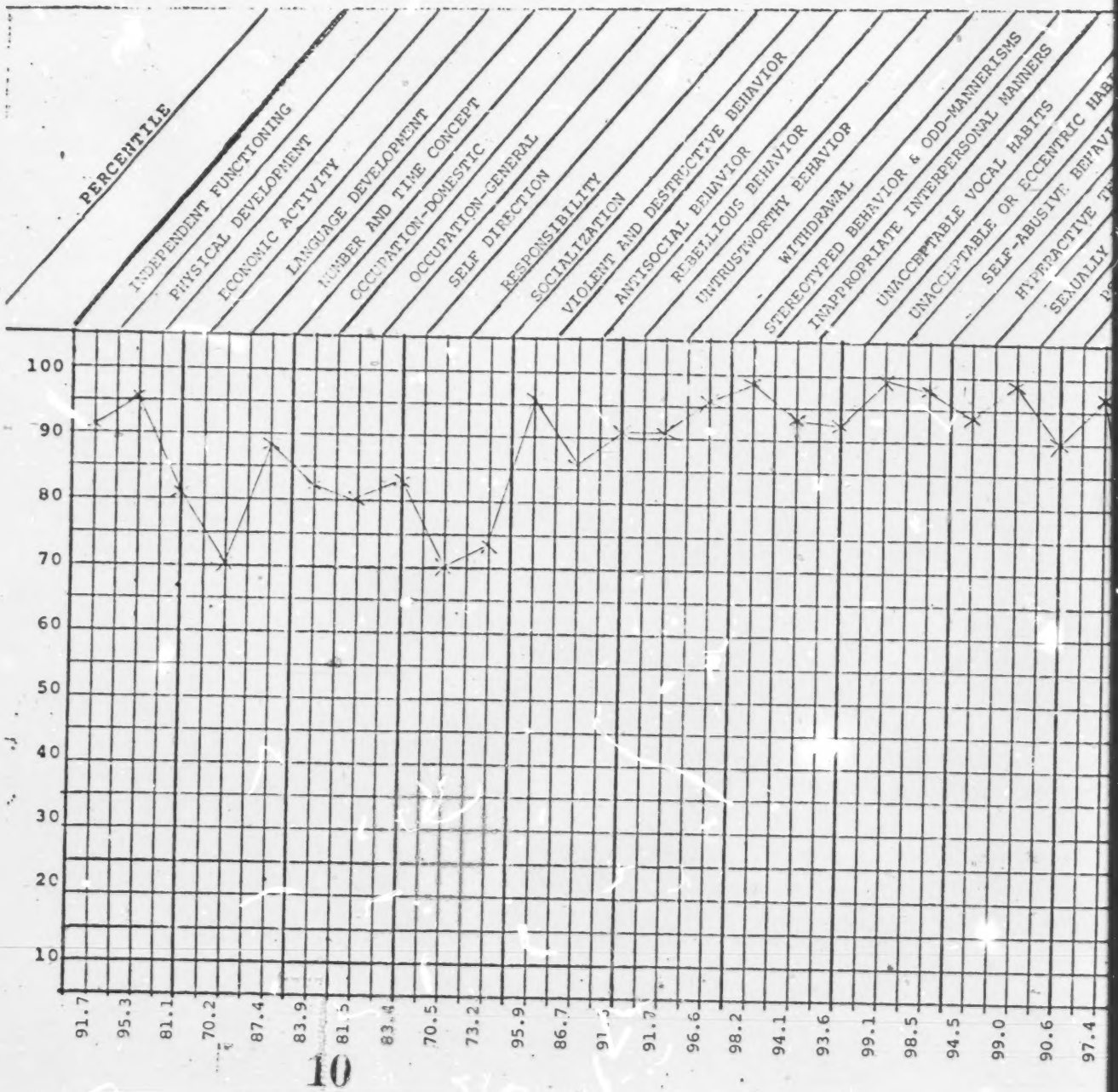
PERCENTILE
INDEPENDENT FUNCTIONING
PHYSICAL DEVELOPMENT
ECONOMIC ACTIVITY
LANGUAGE DEVELOPMENT
NUMBER AND TIME CONCEPT
OCCUPATION-DOMESTIC
OCCUPATION-GENERAL
SELF DIRECTION
RESPONSIBILITY
SOCIALIZATION
VIOLENT AND DESTRUCTIVE BEHAVIOR
ANTISOCIAL BEHAVIOR
REBELLIOUS BEHAVIOR
UNTRUSTWORTHY BEHAVIOR
WITHDRAWAL
STEREOTYPED BEHAVIOR & ODD-MANNERISMS
INAPPROPRIATE INTERPERSONAL MANNERS
UNACCEPTABLE VOCAL HABITS
UNACCEPTABLE OR ECCENTRIC HABITS
SELF-ABUSIVE BEHAVIOR
HYPERACTIVE
SEXUALLY
100
90
80
70
60
50
40
30
20
10
91.7
95.3
81.1
70.2
87.4
83.9
83.4
70.5
73.2
95.9
86.7
96.6
98.2
94.1
93.6
99.1
98.5
94.5
99.0
90.6
97.4

FIGURE I

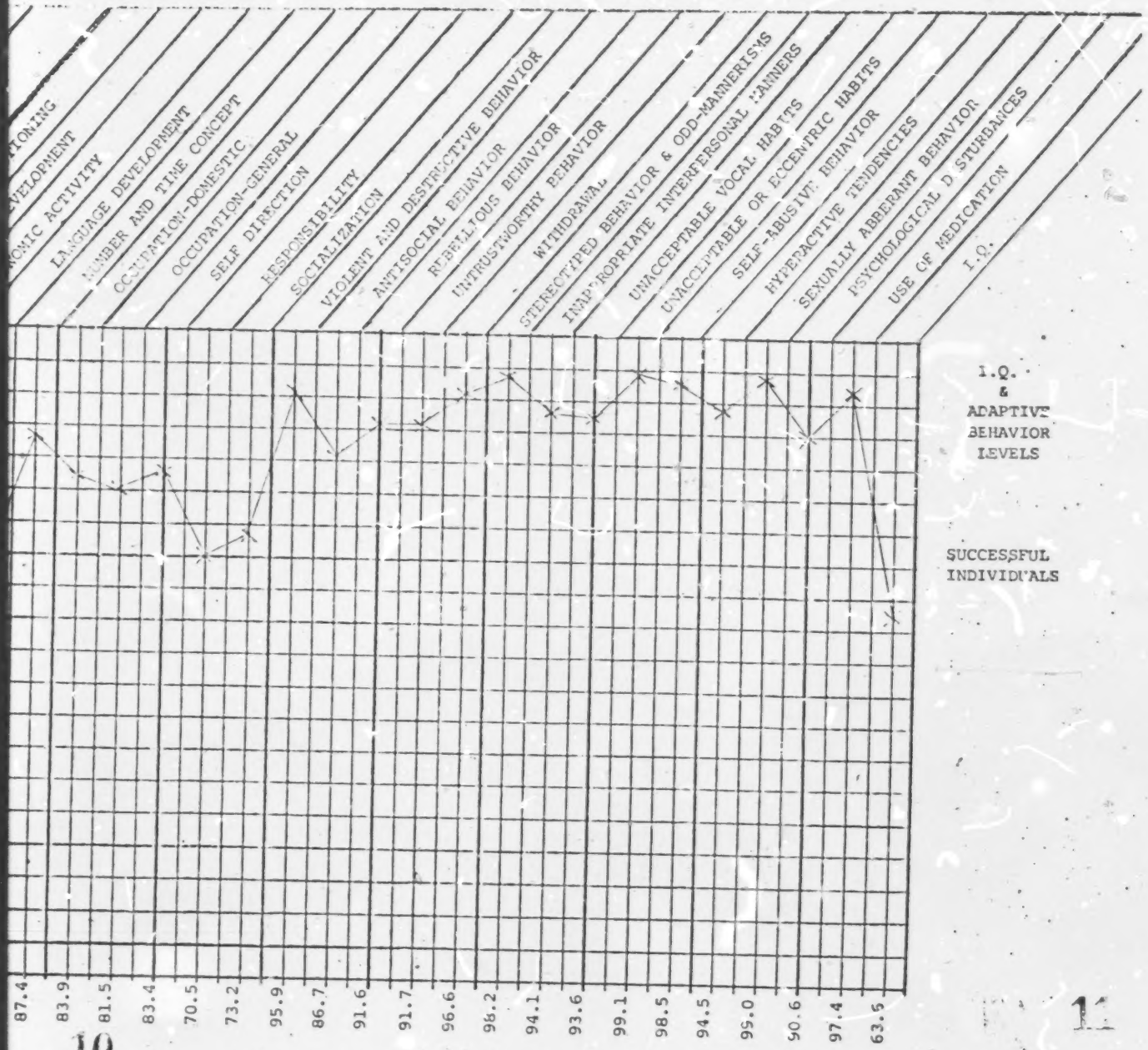
IONING
VELOPMENT
NOMIC ACTIVITY
LANGUAGE DEVELOPMENT
NUMBER AND TIME CONCEPT
OCCUPATION-DOMESTIC
OCCUPATION-GENERAL
SELF DIRECTION
RESPONSIBILITY
SOCIALIZATION
VIOLENT AND DESTRUCTIVE BEHAVIOR
ANTISOCIAL BEHAVIOR
REBELLIOUS BEHAVIOR
UNTRUSTWORTHY BEHAVIOR
WITHDRAWAL
STEREOTYPED BEHAVIOR & ODD-MANNERISMS
INAPPROPRIATE INTERPERSONAL MANNERS
UNACCEPTABLE VOCAL HABITS
UNACCEPTABLE OR ECCENTRIC HABITS
SELF-ABUSIVE BEHAVIOR
HYPERACTIVE TENDENCIES
SEXUALLY ABERRANT BEHAVIOR
PSYCHOLOGICAL DISTURBANCES
USE OF MEDICATION
I.Q.
87.4
83.9
81.5
83.4
70.5
73.2
95.9
86.7
91.6
91.7
96.6
98.2
94.1
93.6
99.1
98.5
94.5
99.0
90.6
97.4
63.5
I.Q.
&
ADAPTIVE
BEHAVIOR
LEVELS
SUCCESSFUL
INDIVIDUALS

FIGURE I (Cont.)

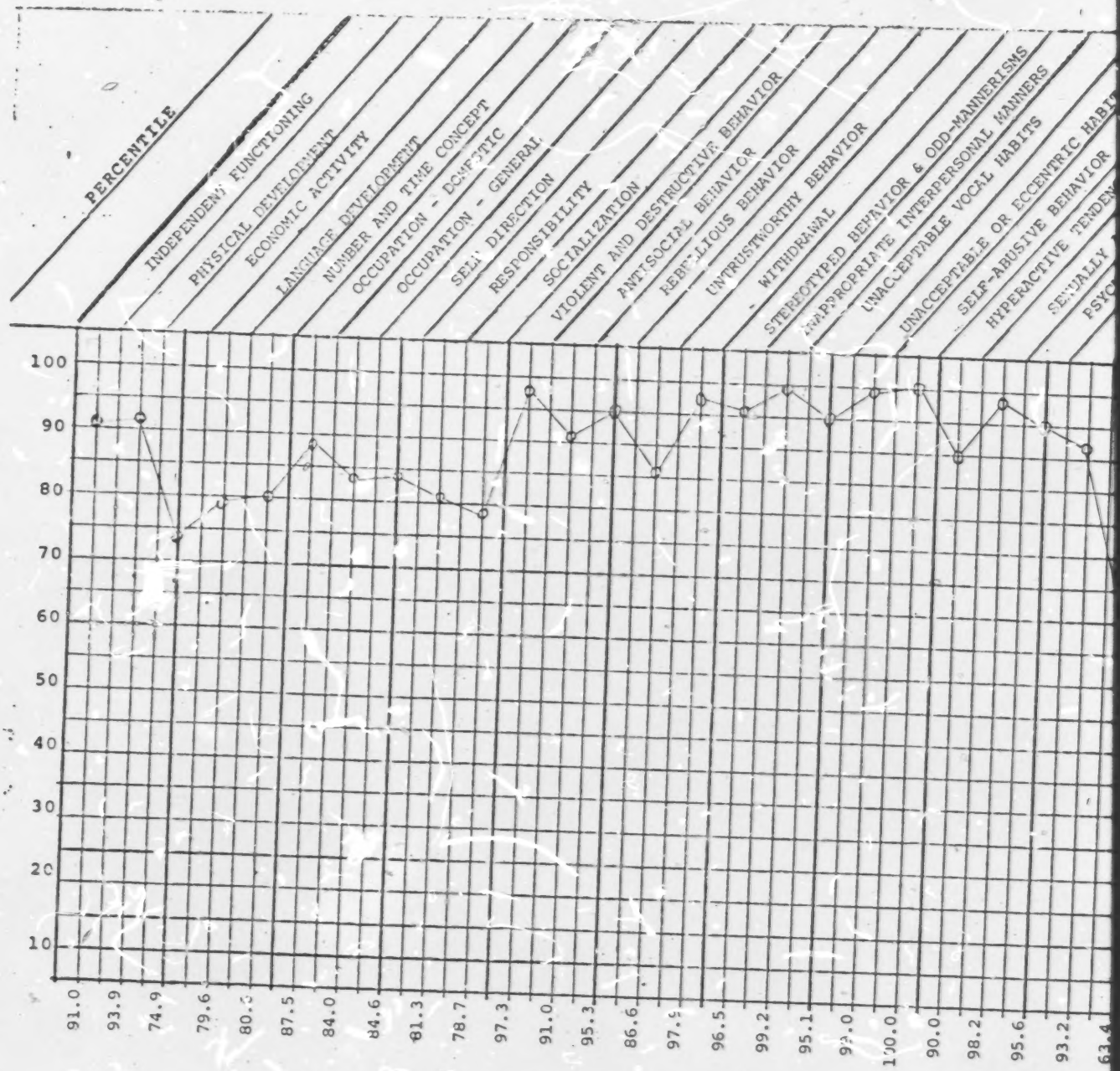

FIGURE I (Cont.)

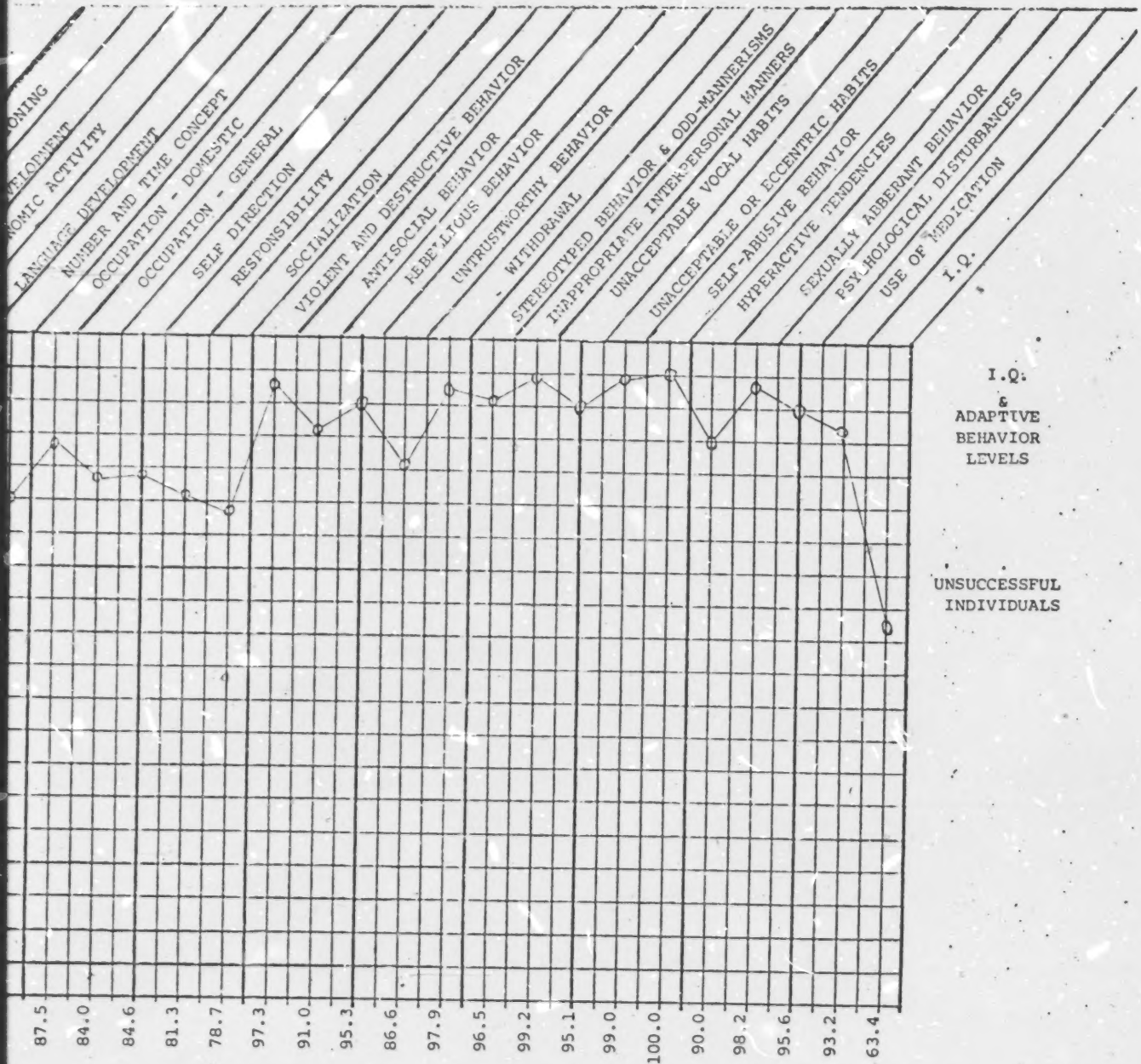

TABLE I

Standardized Discriminant Function Coefficients

Variable	Weight
Language Development	-1.081
Untrustworthy Behavior	.965
Inappropriate Interpersonal Manners	- .705
Economic Activity	.633
Psychological Disturbances	- .571
Number and Time Concept	.554
Rebellious Behavior	- .537
Hyperactive Tendencies	.529
Stereotyped Behavior and Odd Mannerisms	.468
Responsibility	- .462
Self Abusive Behavior	- .444
Independent Functioning	- .407
Occupation - Domestic	.400
Violent and Destructive Behavior	.396
Unacceptable or Eccentric Habits	.338
Antisocial Behavior	.333
Socialization	.320
Physical Development	.269
Unacceptable Vocal Habits	- .255
Withdrawal	- .191
Self Direction	.134
Use of Medication	.130
I.Q.	.124
Sexually Abberant Behavior	- .087
Occupation - General	.002

TABLE II

Evaluation of Classification Functions for Each Case

Function	1	2	Largest Probability	Group Assignment
Group 1 (Successful Group)				
Case				
1	.73758	.26242	.73758	1
2	.92166	.07834	.92166	1
3	.59884	.40116	.59884	1
4	.99225	.00775	.99225	1
5	.81604	.18396	.81604	1
6	.98872	.01128	.98872	1
7	.98708	.01292	.98708	1
8	.70284	.29716	.70284	1
9	.86033	.13967	.86033	1
10	.98666	.01334	.98666	1
11	.61656	.38344	.61656	1
12	.98747	.01253	.98747	1
13	.92434	.07566	.92434	1
14	.95614	.04386	.95614	1
15	.99772	.00228	.99772	1
16	.98893	.01107	.98893	1
17	.99437	.00563	.99437	1
18	.96504	.03496	.96504	1
19	.99188	.00812	.99188	1
20	.93187	.06813	.93187	1
21	.93508	.06492	.93508	1
22	.99257	.00743	.99257	1
23	.19494	.80506	.80506	2
24	.99704	.00296	.99704	1
25	.82203	.17797	.82203	1
26	.96617	.03383	.96617	1
27	.44619	.55381	.55381	2
28	.99861	.00139	.99861	1
29	.90998	.09002	.90998	1
30	.99951	.00049	.99951	1
31	.80973	.19027	.80973	1
32	.99871	.00129	.99871	1
33	.84357	.15643	.84357	1
34	.19911	.80089	.80089	2
35	.74342	.25658	.74342	1
36	.99850	.00150	.99850	1
37	.96188	.03812	.96188	1
38	.69280	.30720	.69280	1
39	.94515	.05485	.94515	1
40	.99075	.00925	.99075	1
41	.63943	.36057	.63943	1
42	.99998	.00002	.99998	1
43	.96008	.03992	.96008	1
44	.99931	.00069	.99931	1
45	.91651	.08349	.91651	1
46	.98866	.01134	.98866	1
47	.99579	.00421	.99579	1

personal manners, weighted at -.705, places the successful group at a lower percentile level than the unsuccessful group.

The discriminant analysis yielded the group classification as shown in Table II. This table is a very useful table in classifying individuals as a member of the successful or unsuccessful group. The discriminant analysis classifies the individual on the basis of his similarity with members of the group.

For case number one the individual has almost 74 percent probability of being in the successful group and 26 percent possibility of being in the unsuccessful group. The individual was assigned to the successful group which was a correct placement for this case. The number two case again was assigned to the successful group which, again, was a correct placement. Only three classifications were missed in the successful group (Group I) and five were missed in the successful group (Group 2).

Table III shows the classification matrix which summarizes the number of hits and misses for all cases. Out of 72 cases only eight were missed yielding a prediction percentage of 88.8.

TABLE III

Classification Matrix

Function	1	2	Total
Group 1 - Successful	44	3	47
Group 2 - Unsuccessful	5	20	25

The individual percentile levels of adaptive behavior for each were computed and used as the basis for the analysis. Table IV shows the results of successful and unsuccessful individuals. The 24 major domains of adaptive behavior are given in capital letters and the subdomains in lower case letters.

TABLE IV

Adaptive Behavior
Individual Computer Percentile Levels

Domain and Subdomain	Percentile	
Part I	Unsuccessful	Successful
Eating Skills	86	100
Toilet Use	90	99
Cleanliness	96	96
Appearance	85	99
Care of Clothing	50	100
Dress and Undress	100	100
Locomotion	63	100
General Independent Functioning	63	98
INDEPENDENT FUNCTIONING	85	99
Sensory Development	100	100
Motor Development	95	100
PHYSICAL DEVELOPMENT	95	99
Money and Budgeting	60	100
Shopping Skills	66	99
ECONOMIC ACTIVITY	64	100
Speaking and Writing	86	73
Comprehension	44	99
General Language Development	81	81
LANGUAGE DEVELOPMENT	76	80
NUMBER AND TIME CONCEPT	70	98
Cleaning	86	100
Kitchen Duties	100	100
General Occupation Domestic	100	100
OCCUPATION - DOMESTIC	95	100
OCCUPATION GENERAL	85	92

TABLE IV (Cont.)

Domain and Subdomain	Percentile	
	Unsuccessful	Successful
Sluggishness	100	100
Initiative	99	99
Persistance	90	100
Planning and Organization	75	100
Self Direction General	33	100
SELF DIRECTION	84	100
RESPONSIBILITY	83	100
SOCIALIZATION	75	90
Part II		
VIOLENT DESTRUCTIVE BEHAVIOR	100	100
ANTISOCIAL BEHAVIOR	93	100
REBELLIOUS BEHAVIOR	88	100
UNTRUSTWORTHY BEHAVIOR	59	100
WITHDRAWAL	100	100
STEREOTYPED BEHAVIOR AND ODD MANNERISMS	100	100
INAPPROPRIATE INTERPERSONAL MANNERS	100	100
UNACCEPTABLE VOCAL HABITS	94	100
UNACCEPTABLE OR ECCENTRIC HABITS	100	100
SELF ABUSIVE BEHAVIOR	100	100
HYPERACTIVE TENDENCIES	70	100
SEXUALLY ABBERANT BEHAVIOR	95	100
PSYCHOLOGICAL DISTURBANCE	94	99
USE OF MEDICATION	80	100

SUMMARY

This study was addressed to those dimensions of adaptive behavior and intelligence level that might differentiate retarded individuals successfully placed in group living situations from those placed unsuccessfully. The question to be answered was: would a significant difference exist between the two groups and, if so, wherein were these differences? The first part of the question raised in the study was stated in a null hypothesis form and was tested for significance (.05) using a chi-square analysis. Multiple discriminant function analysis was employed to find out which variables contributed the most in distinguishing between the two groups of retarded individuals and to which group, successful or nonsuccessful, an individual would be assigned.

The null hypothesis was rejected, thus indicating that there was a significant difference between the two groups. The specific differences in the behavior domains were weighted and listed. A hit-miss classification table indicated proper assignment of individuals to the appropriate group in 88.8 percent of the cases.

The 72 subjects chosen to participate in this study had all been living, or had recently lived, in a group living home. Those who were unsuccessful had returned to the particular Sunland Training Center where they had lived previously. The subjects' intelligence levels were measured by an individual intelligence test. Their adaptive behaviors were measured by the AAMD Adaptive Behavior Scale.

Discussion

The results of this study should be interpreted within the framework of this study. They would seem valid for the sample but until

a cross-validation study takes place, caution must be taken in generalizing the results to larger populations.

It seems unlikely that a higher level of language development would contribute to the failure of a retarded individual to adjustment in a group living home. A closer look needs to be taken in the rater-evaluation system in this area. It would seem possible that the institutional raters might have unintentionally been comparing the unsuccessful individuals with less able individuals in the institution instead of a highly objective individual basis. Also, the institutional rating personnel, in most cases, had known the successful individual longer. As a result, the institutional rating personnel might have been able to experience a higher level of communication with the nonsuccessful individuals than the group living home rating personnel had experienced with the successful individuals.

Adaptive behavior domains that tended to create many problems in group living homes, resulting in the return of the individual to the institution, were the domains of (1) untrustworthy behavior, (2) economic activity, (3) number and time concept, and (4) hyperactive tendencies. Behavioral domains that were tolerated, even though it would seem that they would cause problems, were in the areas of (1) inappropriate interpersonal manners, (2) psychological disturbances, and (3) rebellious behaviors. It seems that this could possibly be when one considers that these areas are often considered tolerable by normal individuals in our society during the adjustment of an individual to a new situation. However, the domains of untrustworthy behavior, economic activity, number and time concept, and hyperactive tendencies might well be intolerable at this time in

a group living environment and also in competitive employment.

The hit-miss classification could be one of the most valuable implications of this study. When placing an individual from an institution into the community one must be as certain as possible that an individual is ready for this type of placement. Utilizing this table would have made it possible to hold back on only three of the 47 successful individuals ready for group living home placement, and further would have avoided the return of 20 of the 25 individuals who were not yet ready for this type of placement. Overall one would have been able to have an 88.8 percent accuracy in placement.

Recommendations

There is a need for an intensive effort toward the development of a well planned program of research and training that would contribute to the development of these areas of adaptive behavior in order that the maximum potential of the mentally retarded can be attained. The challenge for finding accurate methods of predicting the adaptation of the retarded individual to the community must be met. The effects of continued failure can be debilitating (Tymchuk, 1972) and children who experience failure withdraw from most all new situations. Once they have failed in this new situation of community living, following a period of institutionalization, they may withdraw to the confines of the institutional walls and never permit themselves to be placed in the community again.

Individual attitudes and personalities of house parents in the group living homes might yield important information regarding the type and level of individual that should be placed in that particular

home. By determining the individual expectation levels of each group living home, one would further enhance the possibilities of success for the individual.

Group living homes could be developed to accept individuals falling within certain percentile ranges in order that more homogeneous grouping could be attained. This would enable the group living home to plan programs that would meet the needs of each individual more accurately because of this more precise grouping.

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